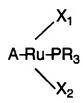
**AMENDMENTS TO THE CLAIMS** 

1. (Currently Amended) A polymer-supported An arene-ruthenium complex wherein the complex is represented by the following formula:



wherein A represents an organic polymer with a side chain comprising an aromatic ring coordinated to Ru,  $X_1$  and  $X_2$  represent the same or different halogen atoms, and  $R_3$  represents a hydrocarbon group that may have a substituent.

- 2. (**Currently Amended**) The <del>polymer-supported</del>-arene-ruthenium complex of claim 1, wherein the hydrocarbon group is an alicyclic hydrocarbon group or an aromatic hydrocarbon group.
- 3. (Currently Amended) The polymer-supported-arene-ruthenium complex of claim 1, wherein the aromatic ring of the side chain is a benzene ring.
- 4. (Currently Amended) The polymer-supported-arene-ruthenium complex of claim 1, wherein the organic polymer is a polystyrene.
- 5. (Currently Amended) A method for producing the polymer-supported-arene-ruthenium complex of claim 1, comprising a ligand exchange of a complex monomer represented by the following formula:

wherein B represents an aromatic compound comprising an aromatic ring coordinated to Ru, and  $X_1$ ,  $X_2$  and  $R_3$  are as defined above, with an organic polymer A with a side chain comprising an aromatic ring.

- 6. (Currently Amended) A polymer-supported An arene-ruthenium catalyst for an organic synthesis reaction, comprising the polymer-supported arene-ruthenium complex of claim 1 as an active component.
- 7. (Currently Amended) The polymer-supported arene-ruthenium catalyst of claim 6, wherein the catalyst is prepared by mixing the complex with a phosphine compound.
- 8. (Currently Amended) The polymer-supported arene-ruthenium catalyst of claim 7, wherein the catalyst is prepared by being mixed with MPF<sub>6</sub>, in which M represents a monovalent cation.
- 9. (Currently Amended) The polymer-supported arene-ruthenium catalyst of claim 8, wherein the catalyst is prepared by being mixed with an alkynyl alcohol compound.
- 10. (Withdrawn) A method of an organic synthesis reaction, wherein a ring-closing metathesis reaction of an olefin compound is carried out in the presence of the catalyst of claim 6.
- 11. (Withdrawn) A method of an organic synthesis reaction, wherein reduction of a carbonyl group is carried out in the presence of the catalyst of claim 6, to synthesize an alcohol compound.
- 12. (Withdrawn) A method of an organic synthesis reaction, wherein a reaction comprising carbon-carbon addition of an acetylene group is carried out in the presence of the catalyst of claim 6.